

INDUSTRIAL MACHINE VISION LIGHTS

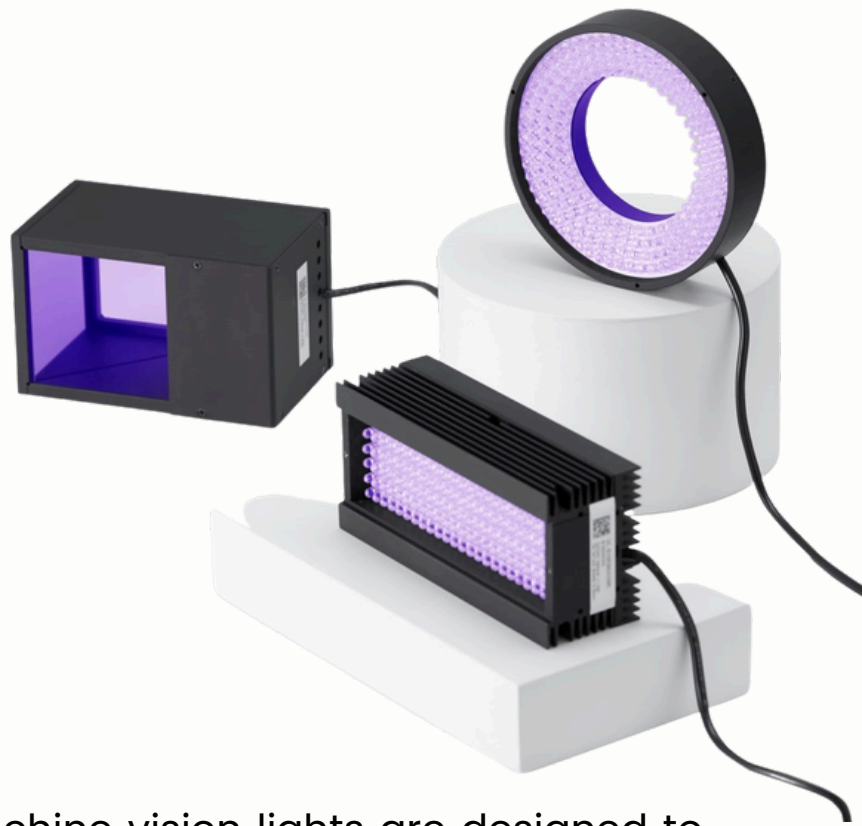


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"Illuminate the Path to Precision: Unleash the Power of Industrial Machine Vision Lights"



Our cutting-edge industrial machine vision lights are designed to illuminate the smallest details, ensuring flawless results and maximum efficiency.

With our extensive range of specialized lights, including line scan, ring, and high-intensity options, you can:

- Enhance image quality and accuracy
- Boost production speed and reliability
- Reduce errors and defects
- Improve overall product quality

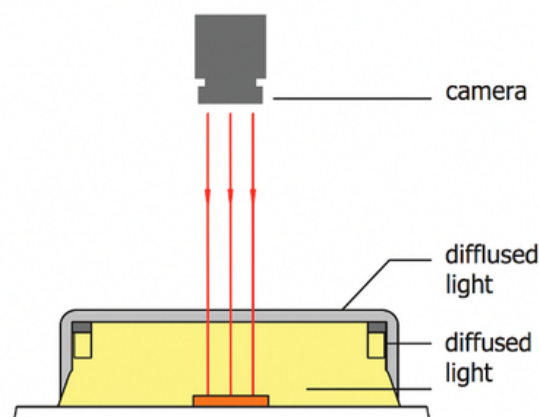
SQUARE SHADOWLESS LIGHTS

PS-FPQ SERIES



The square shadowless light source is an advanced lighting solution specifically designed for machine vision applications, where precise and consistent illumination is crucial. This light source utilizes uniformly distributed LED particles that emit light through a light guide plate from all four sides, ensuring a smooth, evenly diffused light across the entire field of view. By incorporating a top-mounted reflective panel, the system cleverly minimizes glare and reflections commonly encountered with LEDs on glossy or reflective surfaces. This feature is especially beneficial in preventing the formation of shadows and reflections, which can significantly degrade image quality. The unique configuration of the square shadowless light source facilitates shadowless, low-angle lighting as well as multi-directional, uniform illumination from above, making it ideal for detailed inspections in manufacturing environments where precision is paramount. Its application enhances the accuracy of visual inspections, defect detection, and dimensional measurements, thereby supporting quality control and increasing operational efficiency in automated production lines.

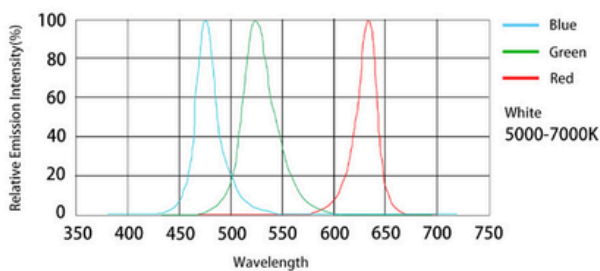
LIGHTING STRUCTURE



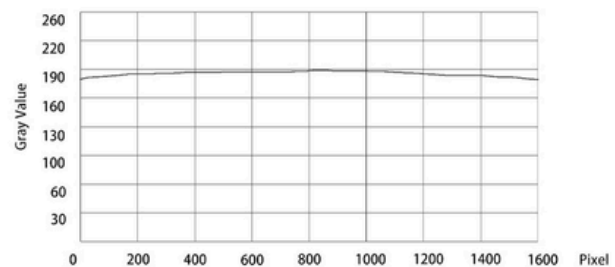
When and how to use Square Shadowless Lights

Square shadowless lights are highly effective in machine vision applications that require even and diffuse illumination without shadows. These lights use LEDs arranged around a square frame, distributing light uniformly through a specialized guide plate. This design ensures that light is diffused evenly across the subject, minimizing harsh shadows and glare which are common issues in precision imaging tasks. To best utilize square shadowless lights, mount them directly above the inspection area where their uniform light can highlight defects such as scratches, dents, or inconsistencies in material without shadow interference. This setup not only enhances the accuracy of defect detection but also supports detailed inspections in assembly lines, quality control, and other industrial automation environments. Adjusting the intensity and angle of the light can further optimize visibility, catering to specific requirements of different machine vision systems.

Spectrum Chart



Uniformity Table



SQUARE SHADOWLESS LIGHTS

PS-FPQ Series

FEATURES

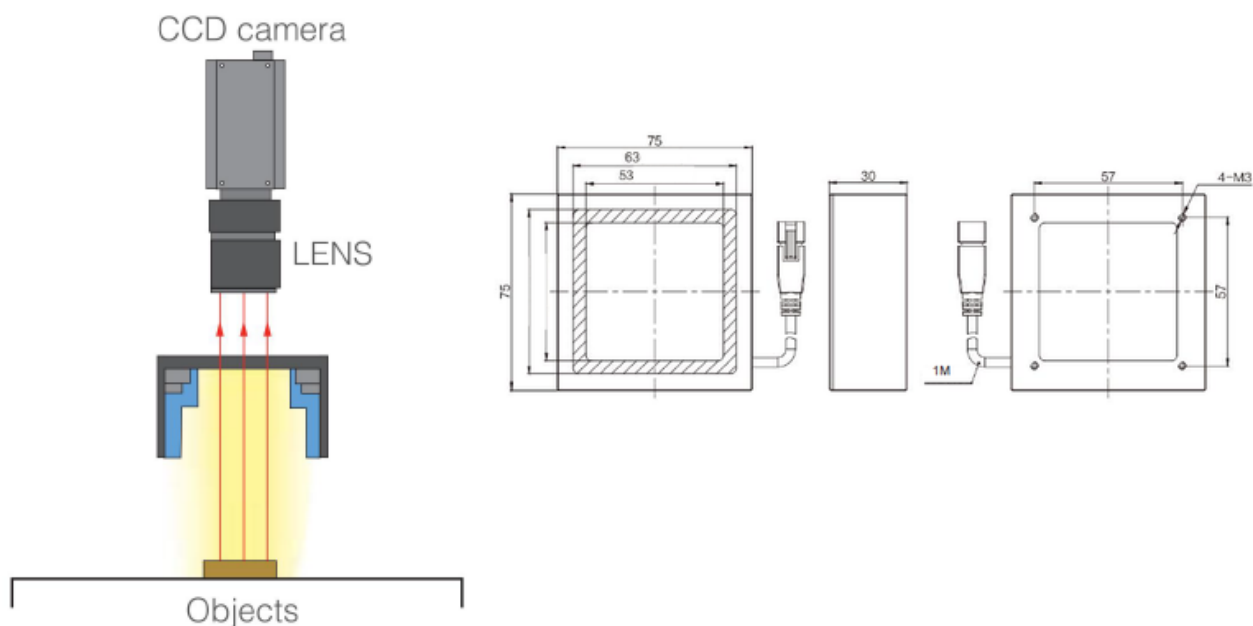
- Surface emission, good uniformity
- Uniform surface illumination, no light spots
- Reflow soldering process, easy installation, compact design
- Achieves shadowless low-angle and multi-directional uniform illumination from the top

APPLICATION

- Cigarette pack surface defect detection
- Small size glass inspection
- IC component character and appearance inspection
- Ideal light source for surface scratches, imprints, damage, and edges
- High reflectivity surface inspection

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PS-FPQ SERIES



TECHNICAL INDEX

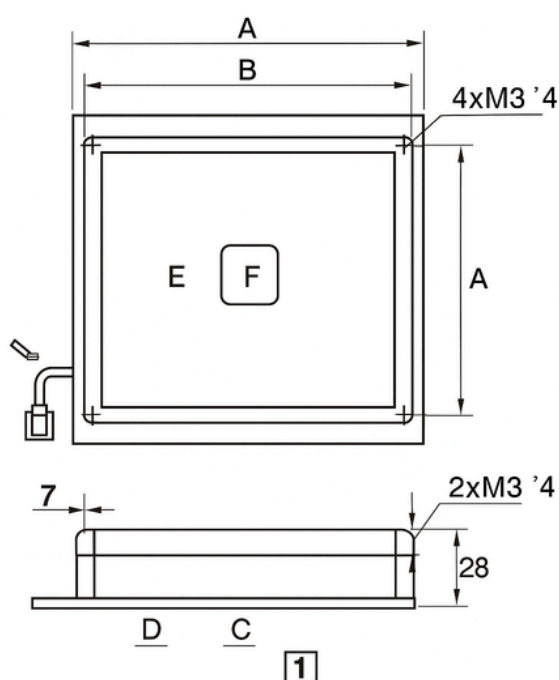
Color (Wavelength)	Red: 620-630nm	Green: 525-530nm	Blue: 465-470nm
	White Color Temperature 6600-7000K	UV: 365-395nm	IR: 850/940nm
Operating environment	Temperature: 0 to 50 C, Humidity: 20% to 85% RH		
Lifetime	100,000 Hours theoretical service time (Depends on the operating environment, not a guarantee.		
Compatible Controller	Analog Controller, Digital Controller, Constant Current Controller		
Optional Accessory	Light sources and Lens Adapter.		
	Diffusion Plate, Polarizing Plate (Optical Transmittance: 60%, 70%, 80%, 90%)		
	Extension Cable: 1m/2m/5m/10m/15m (Two kinds of materials of the shell of wire; PVC of hardness; silicon of softness)		
Warranty	One year warranty, technical support (Buyers pay for the freight)		

SQUARE SHADOWLESS LIGHTS

PS-FPQ SERIES

Model	Color	Power(W)		Dimensions (mm)			
		Power (Green, Blue, White, Ultraviolet)	Power (Red/Infrared)	Luminous Flux (lm)	Beam Angle (degrees)	Working Distance (mm)	Length (mm)
PS-FPQ32		1.08W	0.96W	32	15	15	8.5
PS-FPQ48		2.6W	1.92W	48	33	30	9
PS-FPQ70		3.6W	2.6W	70	55	58	6
PS-FPQ95		4.8W	3.84W	95	80	60	17.5
PS-FPQ120		6.5W	4.8W	120	105	85	17.5
PS-FPQ140		8.4W	5.76W	140	125	105	17.5
PS-FPQ150		8.87W	5.97W	150	134	120	15
PS-FPQ160		7.65W	6.7W	160	145	125	17.5

INSTALLATION DIAGRAM



CONTACT DETAILS

You can also contact us over email / phone, we will be happy to support you.

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